

CLAIMS

1. An apparatus for separating from a liquid mixture, first and second liquid components, wherein the first liquid component has a greater density than the second liquid component, the apparatus including a vessel having an inlet through which the mixture is introduced into the vessel, and an outlet through which separated first liquid is in use discharged, and there being a separating member within the vessel, the mixture being constrained to contact the separating member, the separating member including a material which adsorbs the second liquid component characterised in that the separating member is adapted to move in the vessel downwardly in response to an increase in the weight thereof as second liquid component is adsorbed.

2. An apparatus according to claim 1 characterised in that the inlet is positioned above the outlet.

3. An apparatus according to claim 2 characterised in that the inlet is positioned above the separating member, and the outlet is positioned towards a bottom of the vessel.

4. An apparatus according to claim 2 characterised in that the inlet is positioned at a height between a top and bottom of the vessel generally at a level at which a lower part of the separating member is located prior to any second liquid being adsorbed thereby.

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5. An apparatus according to any one of the preceding claims characterised in that the outlet of the vessel is connected to an upwardly extending chamber which itself has an outlet for the first liquid component, the liquid level in the vessel being governed by the height of the outlet from the chamber.

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6. An apparatus according to claim 5 characterised in that the upwardly extending chamber includes a filter means for filtering from the first liquid component any entrained matter and/or residual second liquid component.

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7. An apparatus according to any one of the preceding claims characterised in that the separating member is adapted to float in the vessel at a level determined by the volume of second liquid adsorbed thereby.

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8. An apparatus according to claim 7 characterised in that the separating member includes a float to increase the buoyancy of the member so that prior to the adsorbing material of the separating member adsorbing second liquid component, the separating member floats so that a lower part thereof is at a desired height in the vessel.

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5      9. An apparatus according to any one of claims 1 to 6 characterised in that support means are provided to support the separating member in the vessel so that prior to the adsorbing material of the separating member adsorbing second liquid component, a lower part of the separating member is at a desired height in the vessel.

10      10. An apparatus according to any one of the preceding claims characterised in that the adsorbing material of the separating member is oleophillic such that the separating material is active to adsorb from a liquid mixture of oil and water, oil.

15      11. An apparatus according to claim 10 characterised in that the inlet receives liquid mixture being liquid condensate from an air compressor machine.

5           ~~12.~~ A method of separating from a liquid  
mixture, first and second liquid components, wherein  
the first liquid component has a greater density than  
the second liquid component, the method including  
10       introducing into a vessel through an inlet thereof the  
mixture, constraining the mixture to contact a  
separating member in the vessel, which member includes  
a material which adsorbs the second liquid component,  
and discharging from the vessel through an outlet  
15       thereof separated first liquid component, characterised  
in that the separating member is adapted to move in the  
vessel downwardly in response to an increase in the  
weight thereof as second liquid component is adsorbed  
thereby, and mixture is introduced into the vessel  
until the separating member has moved to a low position  
in the vessel.

20           13. A method according to claim 12  
characterised in that the method includes filtering any  
entrained matter and residual second liquid component  
from the separated first liquid subsequent to  
contacting the mixture with the adsorbing material of  
the separating member.

25           14. A method according to claim 13  
characterised in that the separated first liquid  
component is discharged from the vessel prior to  
filtering.

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~~15.~~ A method according to any one of claims 12 to 14 characterised in that the liquid level in the vessel is controlled by the level of an outlet from an upwardly extending chamber which is connected to the vessel outlet.